The Nightingale Tracker™
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BACKGROUND

Health care is evolving to include an increased emphasis on community-based delivery modes and automated clinical information systems. This shift in health care is influencing nursing education. In light of these changes, FITNE, Inc., investigated the link between potential information technology use and the clinical needs of those individuals practicing nursing in community-focused settings. These initial research activities took the form of:

• the review of relevant literature.
• the facilitation of five national focus groups.
• interviews with health care delivery experts
• meetings with early adopters of health care information technology.

An analysis of the findings from these initial investigative activities indicated that there was a present and significant need for the development of information technology systems to assist nurse educators to communicate with their students at a distance and to efficiently process clinical data. In response to these findings FITNE, Inc. is developing an information technology (IT) system for use in community nursing education.

SYSTEM DESCRIPTION

This technology, named the Nightingale Tracker™, is a computerized communication system designed to electronically link nursing students or other health care practitioners in community-focused settings with their supervisors. The Nightingale Tracker™ system will consist of:

• portable hardware - Personal Digital Assistants (PDAs), or portable laptops.
• stationary hardware - desktop computers for accessing and transmitting information.
• server hardware - desktop computers which enable a variety of server roles such as client data base, web server, and e-mail server
• software - a client record, client care documentation system, user education record, and a clinical data base.

The system is designed to perform the functions of:

• real-time communication between users and their supervisors or instructors during clinical encounters.
• automated clinical data documentation and processing.

PROTOTYPE RESEARCH

In the Spring of 1996, student subjects from one university in the Midwest pilot tested a prototype of the Nightingale Tracker™. These subjects held favorable attitudes and reactions to the prototype. Suggestions from the pilot study group were incorporated into a later version of the system which is undergoing testing by subjects from five nursing programs across the United States during the first half of 1997. Quantitative data were gathered about subjects' acceptance of the user interface and change in attitudes about POC information technology use over time. Qualitative data were gathered about needed changes in the application via subjects' written journals and post-use focus group. Findings from that study will be used to refine the system for its release.

CONCLUSION

There are several potential benefits to users of the Nightingale Tracker™. When used to monitor novices' practice, the Nightingale Tracker™ can promote a safer clinical environment for both the learner and the client. When used as a tool to communicate clinical information, the system can serve to efficiently and effectively document, organize and store health care data while teaching learners how to integrate information technology into their practice.

Future health care trends suggest that there will be an even greater demand for using information technology in community-focused health care. The efficient, effective, and humane handling of electronic health information will emerge as a defining and distinctive component of health care delivery. Regulatory organizations, insurance companies and managed care providers will continue to depend on timely clinical data gathered and processed by nurses at the point of care. In the future, nurses by necessity will need to be proficient in electronic communication and information processing. Thus, the Nightingale Tracker™ holds promise to help educate nurses to fulfill their future practice role.